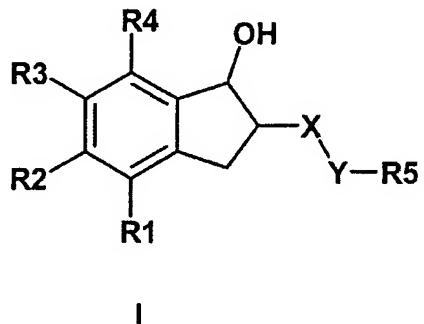


AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A compound of the formula I,



in which

A)

R1 to R4 are H;

X is S, SO, SO₂;

Y is (CH₂)_p, where p is 0, 1, 2 or 3;

R5 is CF₃, (C₂-C₁₈)-alkyl, (C₃-C₄)-cycloalkyl, (C₆-C₈)-cycloalkyl, wherein the alkyl or cycloalkyl groups in each case have zero to seven hydrogen atoms replaced by fluorine;

(CH₂)_r-COR6, where r is 1-6 and R6 is OH, O-(C₁-C₆)-alkyl or NH₂;

CH₂-CH(NHR7)-COR8, where R7 is H, C(O)-(C₁-C₄)-alkyl or C(O)O-(C₁-C₄)-alkyl and R8 is OH, O-(C₁-C₆)-alkyl or NH₂;

phenyl, 1- or 2-naphthyl, or biphenyl or a heterocyclic radical, where the rings or ring systems are substituted one or two times by F, Cl, Br, I, CN, O(C₁-C₈)-alkyl, O(C₃-C₈)-cycloalkyl, O-CO-(C₁-C₈)-alkyl, O-CO-(C₃-C₈)-cycloalkyl, S(O)₀₋₂(C₁-C₈)-alkyl, S(O)₀₋₂(C₃-C₈)-cycloalkyl, NH₂, NH-(C₁-C₈)-alkyl, NH-(C₃-C₈)-cycloalkyl, N[(C₁-C₈)-alkyl]₂, N[(C₃-C₈)-cycloalkyl]₂, NH-CO-(C₂-C₈)-alkyl, NH-CO-(C₃-C₈)-cycloalkyl, SO₃H, SO₂-NH₂, SO₂-NH-(C₁-C₈)-alkyl, SO₂-NH-(C₃-C₈)-cycloalkyl, NH-SO₂-NH₂, NH-SO₂-(C₁-C₈)-alkyl, NH-SO₂-(C₃-C₈)-cycloalkyl, O-CH₂-COOH, O-CH₂-CO-O(C₁-C₈)-alkyl, COOH, CO-O(C₁-C₈)-alkyl, CO-O-(C₃-C₈)-cycloalkyl, CO-NH₂, CO-NH(C₁-C₈)-alkyl, CO-N[(C₁-C₈)-alkyl]₂, (C₁-C₈)-alkyl, or (C₃-C₈)-cycloalkyl, wherein the alkyl or cycloalkyl groups in each case have zero to seven hydrogen atoms independently replaced by fluorine, or
F, Cl, Br, I, or CN;

with the proviso that R5 is not unsubstituted phenyl, 4-fluorophenyl, 4-bromophenyl, 4-chlorophenyl, 3-methylphenyl, 4-methylphenyl, 4-methoxyphenyl, 4-n-butylphenyl, 4-t-butylphenyl, 2-aminophenyl, 2-nitrophenyl or C₁₂-alkyl;

or

B)

R1, R4

independently of one another are

H, F, Cl, Br, I, CN, N₃, NO₂, OH, O(C₁-C₈)-alkyl, O(C₃-C₄ and C₆-C₈)-cycloalkyl, O-CH₂-phenyl, O-phenyl, O-CO-(C₁-C₈)-alkyl, O-CO-(C₃-C₈)-cycloalkyl, S(O)₀₋₂(C₁-C₈)-alkyl, S(O)₀₋₂(C₃-C₈)-cycloalkyl, NH₂, NH-(C₁-C₈)-alkyl, NH-(C₃-C₈)-cycloalkyl, N[(C₁-C₈)-alkyl]₂, N[(C₃-C₈)-cycloalkyl]₂, NH-

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Attorney Docket No. 2481.1799-02

CO-(C₁-C₈)-alkyl, NH-CO-(C₃-C₈)-cycloalkyl, SO₃H, SO₂-NH₂, SO₂-NH-(C₁-C₈)-alkyl, SO₂-NH-(C₃-C₈)-cycloalkyl, NH-SO₂-NH₂, NH-SO₂-(C₁-C₈)-alkyl, NH-SO₂-(C₃-C₈)-cycloalkyl, O-CH₂-COOH, O-CH₂-CO-O(C₁-C₈)-alkyl, COOH, CO-O(C₁-C₈)-alkyl, CO-O-(C₃-C₈)-cycloalkyl, CO-NH₂, CO-NH(C₁-C₈)-alkyl, CO-N[(C₁-C₈)-alkyl]₂, (C₁-C₈)-alkyl, (C₃-C₈)-cycloalkyl, (C₂-C₈)-alkenyl, or (C₂-C₈)-alkynyl, where in the alkyl, cycloalkyl, alkenyl and alkynyl groups in each case have zero to seven hydrogen atoms replaced by fluorine, or one hydrogen replaced by OH, OC(O)CH₃, O-CH₂-Ph, NH₂, NH-CO-CH₃ or N(COOCH₂Ph)₂; or phenyl, or 1- or 2-naphthyl, 5-tetrazolyl, 1-[(C₁-C₆)-alkyl]-5-tetrazolyl, 2-[(C₁-C₆)-alkyl]-5-tetrazolyl; 1-imidazolyl; 1-or 4-[1,2,4]triazolyl, 2-or 3-thienyl, 2-or 3-furyl, 2-, 3-or 4-pyridyl, 2-, 4-or 5-exazolyl, 3-, 4-or 5-isoxazolyl, 2-, 4-or 5-thiazolyl, or 3-, 4-or 5-isothiazolyl where in each case the aryl radical or heterocycle is unsubstituted or substituted one or two times by F, Cl, Br, CN, OH, (C₁-C₄)-alkyl, CF₃, O-(C₁-C₄)-alkyl, S(O)₀₋₂(C₁-C₆)-alkyl, NH₂, NH-SO₂-(C₁-C₄)-alkyl, COOH, CO-O-(C₁-C₄)-alkyl or CO-NH₂ and in the alkyl groups one to seven hydrogen atoms may be replaced by fluorine;

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R2, R3 independently of one another are

H, F, Cl, Br, I, CN, N₃, NO₂, O(C₁-C₈)-alkyl, O(C₃-C₈)-cycloalkyl, O-CO-(C₁-C₈)-alkyl, O-CO-(C₃-C₈)-cycloalkyl, S(O)₀₋₂(C₁-C₈)-alkyl, S(O)₀₋₂(C₃-C₈)-cycloalkyl, NH₂, NH-(C₁-C₈)-alkyl, NH-(C₃-C₈)-cycloalkyl, N[(C₁-C₈)-alkyl]₂, N[(C₃-C₈)-cycloalkyl]₂, NH-CO-(C₁-C₈)-alkyl, NH-CO-(C₃-C₈)-cycloalkyl, SO₃H, SO₂-NH₂, SO₂-NH-(C₅-C₈)-alkyl, SO₂-NH-(C₃-C₈)-cycloalkyl, NH-SO₂-NH₂, NH-SO₂-(C₁-C₈)-alkyl, NH-SO₂-(C₅-C₈)-cycloalkyl; O-CH₂-COOH, O-CH₂-CO-O(C₁-C₈)-alkyl, COOH, CO-O(C₁-C₈)-alkyl, CO-O-(C₃-C₈)-cycloalkyl, CO-NH₂, CO-NH(C₁-C₈)-alkyl, CO-N[(C₁-C₈)-alkyl]₂, (C₁-C₈)-alkyl, (C₃-C₈)-cycloalkyl, (C₂-C₈)-alkenyl, or (C₂-C₈)-alkynyl, where in the alkyl, cycloalkyl, alkenyl and alkynyl groups in each case have zero to seven hydrogen atoms replaced by fluorine, or one hydrogen replaced by OH, OC(O)CH₃, O-CH₂-Ph, NH₂, NH-CO-CH₃ or N(COOCH₂Ph)₂; or

phenyl, or 1- or 2-naphthyl,

5-tetrazolyl,

1-[(C₁-C₆)-alkyl] 5-tetrazolyl,

2-[(C₁-C₆)-alkyl] 5-tetrazolyl;

1-imidazolyl;

1- or 4-[1,2,4]triazolyl,

2- or 3-thienyl,

2- or 3-furyl,

2-, 3- or 4-pyridyl,

2-, 4- or 5-oxazolyl,

3-, 4- or 5-isoxazolyl,

2-, 4- or 5-thiazolyl,

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~~3, 4 or 5 isothiazolyl~~

~~where the heterocycle is unsubstituted or substituted one or two times by F, Cl, Br, CN, OH, (C₁-C₄)-alkyl, CF₃, O-(C₁-C₄)-alkyl, S(O)₀₋₂(C₁-C₆)-alkyl, NH₂, NH-SO₂(C₁-C₄)-alkyl, COOH, CO-O-(C₁-C₄)-alkyl or CO-NH₂ and wherein in the alkyl groups in each case have zero to seven hydrogen atoms replaced by fluorine;~~

or R2 and R3 together form the group -O-CH₂-O-;

where in each case at least one of the radicals R1, R2, R3 and R4 is different from hydrogen;

X is S, SO, SO₂;

Y is (CH₂)_p, where p can be is 0, 1, 2 or 3;

R5 is (C₁-C₁₈)-alkyl or (C₃-C₄)- and C₆-C₈)-cycloalkyl, wherein the alkyl and cycloalkyl groups in each case have zero to seven hydrogen atoms replaced by fluorine;

(CH₂)_r-COR6, where r is 1-6 and R6 is OH, O-(C₁-C₆)-alkyl or NH₂;

CH₂-CH(NHR7)-COR8, where R7 is H, C(O)-(C₁-C₆)-alkyl or C(O)O-(C₁-C₆)-alkyl and R8 is OH, O-(C₁-C₆)-alkyl or NH₂;

phenyl, 1- or 2-naphthyl, or biphenyl or a heterocyclic radical, where the rings or ring systems can be substituted up to two times by F, Cl, Br, I, CN, O(C₁-C₈)-alkyl, O(C₃-C₈)-cycloalkyl, O-CO-(C₁-C₈)-alkyl, O-CO-(C₃-C₈)-cycloalkyl, S(O)₀₋₂(C₁-C₈)-alkyl, S(O)₀₋₂(C₃-C₈)-cycloalkyl, NH₂, NH-(C₁-C₈)-

alkyl, NH-(C₃-C₈)-cycloalkyl, N[(C₁-C₈)-alkyl]₂, N[(C₃-C₈)-cycloalkyl]₂, NH-CO-(C₂-C₈)-alkyl, NH-CO-(C₃-C₈)-cycloalkyl, SO₃H, SO₂-NH₂, SO₂-NH-(C₁-C₈)-alkyl, SO₂-NH-(C₃-C₈)-cycloalkyl, NH-SO₂-NH₂, NH-SO₂-(C₁-C₈)-alkyl, NH-SO₂-(C₃-C₈)-cycloalkyl, O-CH₂-COOH, O-CH₂-CO-O(C₁-C₈)-alkyl, COOH, CO-O(C₁-C₈)-alkyl, CO-O-(C₃-C₈)-cycloalkyl, CO-NH₂, CO-NH(C₁-C₈)-alkyl, CO-N[(C₁-C₈)-alkyl]₂, (C₁-C₈)-alkyl, or (C₃-C₈)-cycloalkyl, where in the alkyl or cycloalkyl groups in each case have zero to seven hydrogen atoms replaced by fluorine; or
~~F, Cl, Br, I, or CN;~~

or a physiologically tolerable salt thereof, in any stereoisomeric form, or a mixture of any such compounds in any ratio.

2. (Currently Amended) The compound as claimed in claim 1, in which

R1, R4 independently of one another are

H, F, Cl, Br, I, CN, N₃, NO₂, OH, O(C₁-C₈)-alkyl, O(C₃-C₄ and C₆-C₈)-cycloalkyl, O-CH₂-phenyl, O-phenyl, O-CO-(C₁-C₈)-alkyl, O-CO-(C₃-C₈)-cycloalkyl, S(O)₀₋₂(C₁-C₈)-alkyl, S(O)₀₋₂(C₃-C₈)-cycloalkyl, NH₂, NH-(C₁-C₈)-alkyl, NH-(C₃-C₈)-cycloalkyl, N[(C₁-C₈)-alkyl]₂, N[(C₃-C₈)-cycloalkyl]₂, NH-CO-(C₁-C₈)-alkyl, NH-CO-(C₃-C₈)-cycloalkyl, SO₃H, SO₂-NH₂, SO₂-NH-(C₁-C₈)-alkyl, SO₂-NH-(C₃-C₈)-cycloalkyl, NH-SO₂-NH₂, NH-SO₂-(C₁-C₈)-alkyl, NH-SO₂-(C₃-C₈)-cycloalkyl, O-CH₂-COOH, O-CH₂-CO-O(C₁-C₈)-alkyl, COOH, CO-O(C₁-C₈)-alkyl, CO-O-(C₃-C₈)-cycloalkyl, CO-NH₂, CO-NH(C₁-C₈)-alkyl, CO-N[(C₁-C₈)-alkyl]₂, (C₁-C₈)-alkyl, (C₃-C₈)-cycloalkyl, (C₂-C₈)-alkenyl, or (C₂-C₈)-alkynyl, wherein the alkyl, cycloalkyl, alkenyl and alkynyl groups in each case have zero to seven hydrogen atoms replaced by

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fluorine, or one hydrogen replaced by OH, OC(O)CH₃, O-CH₂-Ph, NH₂, NH-CO-CH₃ or N(COOC₂Ph)₂; or

phenyl, or 1- or 2-naphthyl,

~~5-tetrazolyl, 1-[(C₁-C₆)-alkyl] 5-tetrazolyl, 2-[(C₁-C₆)-alkyl] 5-tetrazolyl;~~

~~1-imidazolyl;~~

~~1- or 4-[1,2,4]triazolyl;~~

~~2- or 3-thienyl,~~

~~2- or 3-furyl,~~

~~2-, 3- or 4-pyridyl,~~

~~2-, 4- or 5-oxazolyl,~~

~~3-, 4- or 5-isoxazolyl,~~

~~2-, 4- or 5-thiazolyl,~~

~~3-, 4- or 5-isothiazolyl~~

where in each case the aryl radical or heterocycle is unsubstituted or substituted one or two times by

F, Cl, Br, CN,

OH, (C₁-C₄)-alkyl, CF₃, O-(C₁-C₄)-alkyl,

S(O)₀₋₂(C₁-C₆)-alkyl, NH₂, NH-SO₂-(C₁-C₄)-alkyl,

COOH, CO-O-(C₁-C₄)-alkyl, CO-NH₂ and wherein in the alkyl groups in each case have zero to seven hydrogen atoms replaced by fluorine;

R2, R3 independently of one another are

H, F, Cl, Br, I, CN, N₃, NO₂, O(C₁-C₈)-alkyl, O(C₃-C₈)-cycloalkyl, O-CO-(C₁-C₈)-alkyl, O-CO-(C₃-C₈)-cycloalkyl, S(O)₀₋₂(C₁-C₈)-alkyl, S(O)₀₋₂(C₃-C₈)-cycloalkyl, NH₂, NH-(C₁-C₈)-alkyl, NH-(C₃-C₈)-cycloalkyl, N[(C₁-C₈)-alkyl]₂, N[(C₃-C₈)-cycloalkyl]₂, NH-CO-(C₁-C₈)-alkyl, NH-CO-(C₃-C₈)-cycloalkyl,

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SO_3H , $\text{SO}_2\text{-NH}_2$, $\text{SO}_2\text{-NH-(C}_5\text{-C}_8\text{)-alkyl}$, $\text{SO}_2\text{-NH-(C}_3\text{-C}_8\text{)-cycloalkyl}$, $\text{NH-SO}_2\text{-NH}_2$, $\text{NH-SO}_2\text{-(C}_1\text{-C}_8\text{)-alkyl}$, $\text{NH-SO}_2\text{-(C}_5\text{-C}_8\text{)-cycloalkyl}$, $\text{O-CH}_2\text{-COOH}$, $\text{O-CH}_2\text{-CO-O(C}_1\text{-C}_8\text{)-alkyl}$, COOH , $\text{CO-O(C}_1\text{-C}_8\text{)-alkyl}$, $\text{CO-O-(C}_3\text{-C}_8\text{)-cycloalkyl}$, CO-NH_2 , $\text{CO-NH(C}_1\text{-C}_8\text{)-alkyl}$, $\text{CO-N[(C}_1\text{-C}_8\text{)-alkyl]}_2$, $(\text{C}_1\text{-C}_8\text{)-alkyl}$, $(\text{C}_3\text{-C}_8\text{)-cycloalkyl}$, $(\text{C}_2\text{-C}_8\text{)-alkenyl}$, or $(\text{C}_2\text{-C}_8\text{)-alkynyl}$, where in the alkyl, alkenyl cycloalkyl and alkynyl groups in each case have zero to seven hydrogen atoms replaced by fluorine, or one hydrogen replaced by OH , OC(O)CH_3 , $\text{O-CH}_2\text{-Ph}$, NH_2 , NH-CO-CH_3 or $\text{N(COOCH}_2\text{Ph)}_2$; or

phenyl, or 1- or 2-naphthyl,
5-tetrazolyl,
1-[(C₁-C₆) alkyl] 5-tetrazolyl,
2-[(C₁-C₆) alkyl] 5-tetrazolyl;
1-imidazolyl;
1- or 4-[1,2,4]triazolyl,
2- or 3-thienyl,
2- or 3-furyl,
2-, 3- or 4-pyridyl,
2-, 4- or 5-oxazolyl,
3-, 4- or 5-isoxazolyl,
2-, 4- or 5-thiazolyl,
3-, 4- or 5-isothiazolyl

where the heterocycle may be substituted up to two times by

F , Cl , Br , CN , OH , $(\text{C}_1\text{-C}_4)$ alkyl, CF_3 , $\text{O-(C}_1\text{-C}_4)$ alkyl,

$\text{S(O)}_{0-2}(\text{C}_1\text{-C}_6)$ alkyl, NH_2 , $\text{NH-SO}_2(\text{C}_1\text{-C}_4)$ alkyl;

COOH , $\text{CO-O-(C}_1\text{-C}_4)$ alkyl, CO-NH_2 wherein the alkyl groups in each case have zero to seven hydrogen atoms replaced by fluorine;

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or R2 and R3 together form the group $-O-CH_2-O-$;
where in each case at least one of the radicals R1, R2, R3 and R4 is different from hydrogen;

X is S, SO, SO₂;

Y is $(CH_2)_p$, where p can be is 0, 1, 2 or 3;

R5 is (C_1-C_{18}) -alkyl or (C_3-C_4) - and C_6-C_8 -cycloalkyl, wherein the alkyl or cycloalkyl groups in each case have zero to seven hydrogen atoms replaced by fluorine;

$(CH_2)_r-COR_6$, where r is 1-6 and R6 is OH, O- (C_1-C_6) -alkyl or NH₂;

$CH_2-CH(NHR_7)-COR_8$, where R7 is H, C(O)- (C_1-C_6) -alkyl or C(O)O- (C_1-C_6) -alkyl where R8 is OH, O- (C_1-C_6) -alkyl or NH₂;

phenyl, 1- or 2-naphthyl, or biphenyl or a heterocyclic radical, where the rings or ring systems can be substituted up to two times by F, Cl, Br, I, CN, O- (C_1-C_8) -alkyl, O- (C_3-C_8) -cycloalkyl, O-CO- (C_1-C_8) -alkyl, O-CO- (C_3-C_8) -cycloalkyl, S(O)₀₋₂- (C_1-C_8) -alkyl, S(O)₀₋₂- (C_3-C_8) -cycloalkyl, NH₂, NH- (C_1-C_8) -alkyl, NH- (C_3-C_8) -cycloalkyl, N[(C_1-C_8)-alkyl]₂, N[(C_3-C_8)-cycloalkyl]₂, NH-CO- (C_2-C_8) -alkyl, NH-CO- (C_3-C_8) -cycloalkyl; SO₃H; SO₂-NH₂, SO₂-NH- (C_1-C_8) -alkyl, SO₂-NH- (C_3-C_8) -cycloalkyl; NH-SO₂-NH₂; NH-SO₂- (C_1-C_8) -alkyl, NH-SO₂- (C_3-C_8) -cycloalkyl; O- CH_2 -COOH, O- CH_2 -CO-O- (C_1-C_8) -alkyl, COOH, CO-O- (C_1-C_8) -alkyl, CO-O- (C_3-C_8) -cycloalkyl, CO-NH₂, CO-NH(C_1-C_8)-alkyl, CO-N[(C_1-C_8)-alkyl]₂; (C_1-C_8)-alkyl, or (C_3-C_8)-cycloalkyl, wherein

the alkyl or cycloalkyl groups in each case have zero to seven hydrogen atoms replaced by fluorine; or
~~F, Cl, Br, I, or CN;~~

or a physiologically tolerable salt thereof, in any stereoisomeric form, or a mixture of any such compounds in any ratio.

3. (Currently Amended) The compound as claimed in claim 1, in which

R1, R4 independently of one another are H, F, Cl, or Br;

R2, R3 independently of one another are H, F, Cl, Br, CN, CONH₂, NH-SO₂-(C₁-C₈)-alkyl, O-(C₁-C₈)-alkyl, COOH, (C₁-C₈)-alkyl, (C₁-C₈)-alkenyl, (C₁-C₈)-alkynyl, wherein the alkyl, alkenyl and alkynyl groups in each case have zero to seven hydrogen atoms replaced by fluorine; or

phenyl, or 1-imidazolyl; where the rings may be substituted up to two times by

F, Cl, Br, CN, OH, (C₁-C₄)-alkyl, CF₃, O-(C₁-C₄)-alkyl, wherein the alkyl groups in each case have zero to seven hydrogen atoms replaced by fluorine;

where in each case at least one of the radicals R1, R2, R3 and R4 is different from hydrogen;

X is S, SO, SO₂;

Y is $(CH_2)_p$, where p can be is 0 or 1;

R5 is (C_1-C_{18}) -alkyl or (C_3-C_4) - and C_6-C_8 -cycloalkyl, where in the alkyl and cycloalkyl groups in each case have zero to seven hydrogen atoms replaced by fluorine;

$(CH_2)_r-CO-O-(C_1-C_6)$ -alkyl, where r is 1-6;

$CH_2-CH(NHR7)-COR8$, where R7 is H, $C(O)-(C_1-C_4)$ -alkyl or $C(O)O-(C_1-C_4)$ -alkyl and R8 is OH, $O-(C_1-C_6)$ -alkyl or NH_2 ;

phenyl, a heterocyclic radical;

or a physiologically tolerable salt thereof, in any stereoisomeric form, or a mixture of any such compounds in any ratio.

4. - 29. (Cancelled)

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